WHAT IS CLAIMED IS:

1. A channel coding device comprising:

a bit inserter for inserting known bits in an input data bit stream at predetermined positions;

a channel coder for coding the bit-inserted data bit stream to generate coded symbols;

a rate matcher for matching a rate of the coded symbols to a given channel symbol rate; and

a channel interleaver for interleaving the rate matched channel symbols.

2. The channel coding device as claimed in claim 1, wherein the rate matcher comprises a puncturer for puncturing the inserted known bits included in the coded symbols when the coded symbol rate is higher than the given channel symbol rate.

3. The channel coding device as claimed in claim 2, wherein the puncturer punctures only parity symbols.

4. The channel coding device as claimed in claim 3, wherein the puncturer punctures only specific parity symbols outputted by the channel coder.

5. The channel coding device as claimed in claim 4, wherein the puncturer punctures only specific parity symbols such that the parity symbols are not consecutively punctured as many as the number of memories in a constituent coder for the channel coder.

6. The channel coding device as claimed in claim 4, wherein the puncturer selectively punctures only specific parity symbols such that not all of the parity symbols for a data bit are punctured.

7. The channel coding device as claimed in claim 1, wherein the rate matcher comprises a repeater for repeating the coded symbols to match the coded symbol rate to the given channel symbol rate when the coded symbol rate is lower than the given channel symbol rate.

8. The channel coding device as claimed in claim 1, wherein the rate matcher comprises:

a repeater for repeating the coded symbols to approximately match the coded symbol rate to the given channel symbol rate when the coded symbol rate is lower than the given channel symbol rate; and

a puncturer for puncturing the repeated symbols to match a rate of the repeated symbols to the given channel symbol rate.

9. The channel coding device as claimed in claim 8, wherein the puncturer punctures only parity symbols.

10. The channel coding device as claimed in claim 9, wherein the puncturer punctures only specific parity symbols outputted by the channel coder.

11. The channel coding device as claimed in claim 10, wherein the puncturer punctures only specific parity symbols such that the parity symbols are not consecutively punctured as many as the number of memories in a constituent coder for the channel coder.

12. The channel coding device as claimed in claim 10, wherein the puncturer selectively punctures only specific parity symbols such that not all of the parity symbols for a data bit are punctured.

13. A channel coding device comprising:

first bit inserters for inserting known bits in corresponding source user data bit streams at predetermined positions;

first channel coders for coding the bit-inserted user data bit streams to generate coded user symbols;

first rate matchers for matching a rate of the user symbols to a given channel user symbol rate;

a second bit inserter for inserting known bits in a source control data bit stream at predetermined positions;

a second channel coder for coding the bit-inserted control data bit stream to generate coded control symbols;

a second rate matcher for matching a rate of the control symbols to a given channel control symbol rate;

a multiplexer for multiplexing an output of the first rate matcher and an output of the second rate matcher;

a channel rate matcher for matching a rate of symbols outputted from the multiplexer

to a given channel control symbol rate; and

a channel interleaver for interleaving output symbols of the channel rate matcher in a channel unit.

14. The channel coding device as claimed in claim 13, wherein the first rate matchers each comprise a puncturer for puncturing the user symbols when the user symbol rate is higher than the given channel user symbol rate.

15. The channel coding device as claimed in claim 13, wherein the first rate matchers each comprise a repeater for repeating the user symbols to match the user symbol rate to the given channel user symbol rate when the user symbol rate is lower than the given channel user symbol rate.

16. The channel coding device as claimed in claim 13, wherein the first rate matchers each comprise:

a repeater for repeating the user symbols to approximately match the user symbol rate to the given channel user symbol rate when the user symbol rate is lower than the given channel user symbol rate; and

a puncturer for puncturing the repeated user symbols to match a rate of the repeated user symbols to the given channel user symbol rate.

17. The channel coding device as claimed in claim 13, wherein the second rate matcher comprises a puncturer for puncturing the control symbols when the control symbol rate is higher than the given channel control symbol rate.

18. The channel coding device as claimed in claim 13, wherein the second rate matcher comprises a repeater for repeating the control symbols to match the control symbol rate to the given channel control symbol rate when the control symbol rate is lower than the given channel control symbol rate.

19. The channel coding device as claimed in claim 13, wherein the second rate matcher comprises:

a repeater for repeating the control symbols to approximately match the control symbol rate to the given channel control symbol rate when the control symbol rate is lower than the given channel control symbol rate; and

a puncturer for puncturing the repeated control symbols to match a rate of the repeated control symbols to the given channel control symbol rate.

20. The channel coding device as claimed in claim 13, wherein the channel rate matcher comprises a puncturer for puncturing symbols outputted from the multiplexer when a rate of the symbols outputted from the multiplexer is higher than the given channel symbol rate.

21. The channel coding device as claimed in claim 13, wherein the channel rate matcher comprises a repeater for repeating the symbols outputted from the multiplexer to match a symbol rate to the given channel symbol rate when the rate of the symbols outputted from the multiplexer is lower than the given channel symbol rate.

22. The channel coding device as claimed in claim 13, wherein the channel rate matcher comprises:

a repeater for repeating the symbols outputted from the multiplexer to approximately match a symbol rate to the given channel symbol rate when the rate of the symbols outputted from the multiplexer is lower than the given channel symbol rate; and

a puncturer for puncturing the repeated symbols to match a repeated symbol rate to the given channel symbol rate.

23. A channel coding device comprising:

first bit inserters for inserting known bits in corresponding source user data bit streams at predetermined positions;

first channel coders for coding the bit-inserted user data bit streams to generate coded user symbols;

first rate matchers for matching a rate of the user symbols to a given channel user symbol rate;

a second channel coder for coding a source control data bit stream to generate coded control symbols;

a second rate matcher for matching a rate of the control symbols to a given channel control symbol rate;

a multiplexer for multiplexing an output of the first rate matcher and an output of the second rate matcher;

a channel rate matcher for matching a rate of symbols outputted from the multiplexer to a given channel symbol rate; and

a channel interleaver for interleaving output symbols of the channel rate matcher in

a channel unit.

24. The channel coding device as claimed in claim 23, wherein the first rate matchers each comprise a puncturer for puncturing the user symbols when the user symbol rate is higher than the given channel user symbol rate.

25. The channel coding device as claimed in claim 23, wherein the first rate matchers each comprise a repeater for repeating the user symbols to match the user symbol rate to the given channel user symbol rate when the user symbol rate is lower than the given channel user symbol rate.

26. The channel coding device as claimed in claim 23, wherein the first rate matchers each comprise:

a repeater for repeating the user symbols to approximately match the user symbol rate to the given channel user symbol rate when the user symbol rate is lower than the given channel user symbol rate; and

a puncturer for puncturing the repeated user symbols to match a repeated user symbol rate to the given channel user symbol rate.

27. The channel coding device as claimed in claim 23, wherein the second rate matcher comprises a puncturer for puncturing the control symbols when the control symbol rate is higher than the given channel control symbol rate.

28. The channel coding device as claimed in claim 23, wherein the second rate matcher comprises a repeater for repeating the control symbols to match the control symbol rate to the given channel control symbol rate when the control symbol rate is lower than the given channel control symbol rate.

29. The channel coding device as claimed in claim 23, wherein the second rate matcher comprises:

a repeater for repeating the control symbols to approximately match the control symbol rate to the given channel control symbol rate when the control symbol rate is lower than the given channel control symbol rate; and

a puncturer for puncturing the repeated control symbols to match a repeated control symbol rate to the given channel control symbol rate.

30. The channel coding device as claimed in claim 23, wherein the channel rate matcher comprises a puncturer for puncturing symbols outputted from the multiplexer when a rate of the symbols outputted from the multiplexer is higher than the given channel symbol rate.

31. The channel coding device as claimed in claim 23, wherein the channel rate matcher comprises a repeater for repeating the symbols outputted from the multiplexer to match the symbol rate to the given channel symbol rate when a rate of the symbols outputted from the multiplexer is lower than the given channel symbol rate.

32. The channel coding device as claimed in claim 23, wherein the channel rate matcher comprises:

a repeater for repeating the symbols outputted from the multiplexer to approximately match the symbol rate to the given channel symbol rate when a rate of the symbols outputted from the multiplexer is lower than the given channel symbol rate; and

a puncturer for puncturing the repeated symbols to match a repeated symbol rate to the given channel symbol rate.

33. A channel coding method comprising the steps of:

inserting known bits in an input data bit stream at predetermined positions;

coding the bit-inserted data bit stream to generate coded symbols;

matching a rate of the coded symbols to a given channel symbol rate; and

interleaving the rate matched channel symbols.

34. The channel coding method as claimed in claim 33, wherein the rate matching step comprises the step of puncturing the inserted known bits included in the coded symbols when the coded symbol rate is higher than the given channel symbol rate.

35. The channel coding method as claimed in claim 33, wherein the rate matching step comprises the step of repeating the coded symbols to match the coded symbol rate to the given channel symbol rate when the coded symbol rate is lower than the given channel symbol rate.

36. The channel coding method as claimed in claim 33, wherein the rate matching step comprises the steps of:

repeating the coded symbols to approximately match the coded symbol rate to the given channel symbol rate when the coded symbol rate is lower than the given channel symbol rate; and

puncturing the repeated symbols to match a repeated symbol rate to the given channel symbol rate.

37. A channel coding method comprising the steps of:

inserting known bits in corresponding source user data bit streams at predetermined positions;

coding the bit-inserted user data bit streams to generate coded user symbols;

matching a rate of the user symbols to a given channel user symbol rate;

inserting known bits in a source control data bit stream at predetermined positions;

coding the bit-inserted control data bit stream to generate coded control symbols;

matching a rate of the control symbols to a given channel control symbol rate;

multiplexing an output of the first rate matcher and an output of the second rate matcher;

matching a rate of symbols outputted from the multiplexer to a given channel symbol rate; and

interleaving output symbols of the channel rate matcher in a channel unit.

38. A channel coding method comprising the steps of:

inserting known bits in corresponding source user data bit streams at predetermined positions;

coding the bit-inserted user data bit streams to generate coded user symbols;

matching a rate of the user symbols to a given channel user symbol rate;

coding a source control data bit stream to generate coded control symbols;

matching a rate of the control symbols to a given channel control symbol rate;

multiplexing an output of the first rate matcher and an output of the second rate matcher;

matching a rate of symbols outputted from the multiplexer to a given channel symbol rate; and

interleaving output symbols of the channel rate matcher in a channel unit.